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CLAIMS:

1.   A method of channel decoding speech frames in a receiver capable of multiple (M) codec modes, said channel encoded speech frames comprised of an inband bit portion and a speech portion, said method comprising:

        (a) decoding the inband bit portion of a received frame to obtain confidence levels associated with each of the M codec modes 700;

        (b) choosing the most likely codec mode based on the highest confidence level to channel decode the speech portion 704;

        (c) decoding the speech portion 310 of the received frame using the chosen speech codec mode;

        (d) performing a frame determination check 720 to determine the quality of the decoded speech frame; and

        (e) if the decoded speech frame is determined to be of poor quality, then choosing the next most likely codec mode 736 corresponding to the next highest inband bit decoding confidence level and repeating steps (c) through (e).

2.   The method of claim 1 wherein steps (c) through (e) are repeated for a maximum number of iterations (N) 732, where N ≤ M.

3.   The method of claim 1 wherein steps (c) through (e) are repeated so long as the confidence level for the inband bit decoding with respect to the current codec mode is above a threshold confidence level 802.

4.   The method of claim 2 wherein the maximum number of iterations N is determined prior to choosing the most likely codec mode to decode the speech portion based on the highest confidence level (902, 904, 704).

5.   The method of claim 4 wherein the maximum number of iterations (N) is set to the number of codec modes that exceed a threshold confidence level 902.

6.   A method of channel decoding speech frames in a receiver capable of multiple (M) codec modes, said channel encoded speech frames comprised of an inband bit portion and a speech portion, said method comprising:

        calculating an inband decode metric for each speech codec mode 1002;

        partially decoding speech data for each speech codec mode 1004;

        determining the most likely speech codec mode 1006 based upon the partially decoded speech data and the calculated inband decode metric data; and

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resuming decoding of the speech data 1008 using the most likely speech codec mode.

7.   A receiver for channel decoding speech frames, said receiver capable of multiple (M) codec modes, said channel encoded speech frames comprised of an inband bit portion and a speech portion, said receiver comprising:

an inband bit decoder for:

decoding the inband bit portion of a speech frame to obtain confidence levels associated with each of the M codec modes 700; and

choosing the most likely speech codec mode based on the highest confidence level to decode the speech portion 704; and

a channel decoder coupled with the inband bit decoder for:

decoding the speech portion 310 of the received frame using the chosen codec mode;

performing a frame determination check 720 to determine the quality of the decoded speech frame; and

if the decoded speech frame is determined to be of poor quality, then choosing the next most likely codec mode 736 corresponding to the next highest inband bit decoding confidence level and running the channel decoder on the received frame again.

8.   The receiver of claim 7 wherein the channel decoder is run for a maximum number of iterations (N) 732, where $N \leq M$.

9.   The receiver of claim 7 wherein the channel decoder is run so long as the confidence level for the inband bit decoding with respect to the current codec mode is above a threshold confidence level 802.

10.   The receiver of claim 8 wherein the maximum number of iterations N is determined prior to the inband bit decoder choosing the most likely codec mode to decode the speech portion based on the highest confidence level (902, 904, 704).

11.   The receiver of claim 10 wherein the maximum number of iterations (N) is set to the number of codec modes that exceed a threshold confidence level 902.

12.   A receiver for channel decoding speech frames, said receiver capable of multiple (M) codec modes, said channel encoded speech frames comprised of an inband bit portion and a speech portion, said receiver comprising:

an inband bit decoder for:

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calculating an inband decode metric for each codec mode 1002; and

a channel decoder for:

partially decoding speech data for each codec mode 1004;

determining the most likely codec mode 1006 based upon the partially decoded speech data and the calculated inband decode metric data; and

resuming decoding of the speech data 1008 using the most likely codec mode.